ABSTRACT

Synthetic processes are provided for the solution phase synthesis of oligonucleotides, especially phosphorothicate oligonucleotides, and intermediate compounds useful in the processes. Intermediates having structure

YO Q Bx

O X

$$z = P - T$$

O X

 $z = P - T$

O Q Bx

O X

 $y = P - T$

O Q Bx

W

are prepared in accord with preferred embodiments.